ABSTRACT OF THE DISCLOSURE

A broadcast program storing system, in which a combination of programs to be stored is optimized, and a program set that makes the degree of satisfaction of a user optimal can be stored, is provided. The broadcast program storing system provides a preference learning means that learns the preferences of a user for programs by viewing behavior of the user, a degree of preference predicting means for predicting the degree of preference of the user for each program from information of the program, and a storing planning means, which chooses a combination of programs by solving a temporally expanded knapsack problem that obtains a solution that the sum of the predicted degree of satisfaction in a planned schedule becomes maximal in a storing capacity having a bound when programs to be stored and programs to be deleted are decided. With this structure, a broadcast storing apparatus, in which programs being suitable for the user are automatically stored by using the storing capacity of the broadcast storing apparatus and the stored programs are displayed to the user, can be realized. Further, by utilizing the broadcast program storing system, a data storing apparatus that stores data received from a TV, a radio, or through the Internet, efficiently and automatically, can be realized by using a magnetic tape or a random access recording medium such as a HDD.